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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,225	12/06/2000	Weidong Mao	1181	1852

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EXAMINER

USTARIS, JOSEPH G

ART UNIT

PAPER NUMBER

2617

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/731,225	<b>Applicant(s)</b> MAO ET AL.	
	<b>Examiner</b> Joseph G. Ustaris	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 4-6, 10-12 and 16-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-6, 10-12 and 16-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the amendment dated 15 August 2005 in application 09/731,225. Claims 4-6, 10-12, and 16-23 are pending. Claims 4, 6, 10, 12, 16, and 19-23 are amended.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 August 2005 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6, 10-12, and 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goffin, II (US006918135B1) in view of Gotwald (US005987518A), Banker et al. (US005497187A), and Addington (US006928656B).

Regarding claim 4, Goffin, II (Goffin) discloses a "digital video television communication system having a headend coupled to a two-way communication medium

and at least one digital video settop box coupled to the two-way communications medium" (See Figs. 1 and 2; column 2 line 66 – column 3 line 12). The headend transmits a "plurality of communication channels" (See Fig. 1) including "first and second in-band channels" (See Fig. 1, channels 32) and an "out-of-band (OOB) region having at least one out-of-band (OOB) communication channel" (See Fig. 1, channels 33; column 5 lines 10-17). Each of the "in-band channels" or "first and second in-band channels" has a "first and second plurality of multiplexed digital video channels" (See column 3 lines 27-39). The system "sends a channel change request from the settop box to the headend" where the request represents "a channel change at the settop box from one of the multiplexed digital video channels in the first in-band video channel to one of the multiplexed digital video channels in the second in-band video channel" (See Fig. 7b, 704; column 6 lines 8-30). The headend then "sends a channel resource confirmation message to the settop box" (See Fig. 7b, 712), where inherently the message "identifies the selected communications channel" in order for the settop box to successfully tune to the correct in-band channel 32 or out-of-band channel 33 (See column 4 line 62 – column 5 line 17). The settop box then "selects the selected communication channel for receiving data from the headend" (See Fig. 7b, 716). However, Goffin does not explicitly disclose (1) that the "in-band channels can transport IP data", (2) "determining whether the second in-band video channel has an available communication channel" and "selecting the second video channel if the second video channel has an available communications channel...and selecting a OOB channel...if

second communication channel does not have an available communication channel”, and (3) that the OOB channel can transport IP data.

(1) Gotwald discloses a method for communicating Internet Protocol (IP) data over a broadband MPEG channel. The system includes a multiplexing driver that multiplexes various MPEG2 streams, from various sources, onto each channel (See Fig. 2; column 3 lines 40-56). The multiplexing driver also multiplexes IP data or IP datagrams, which has been encapsulated into a MPEG2 transport packets, onto each channel where inherently MPEG2 data packets are identified by “packet ID (PID)” (See Fig. 2; column 4 lines 25-40). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the headend and “in-band channels” disclosed by Goffin to transport IP data over MPEG data packets, as taught by Gotwald, in order to provide a low cost and efficient means of communicating IP data to the set-top terminal or “set-top box” by using a well the known and established MPEG standard.

(2) Banker et al. (Banker) discloses an in-band/out-of-band data transmission method for a television system. The system utilizes both the in-band and out-of-band (OOB) to transport data to the terminals or set-top terminals. The system first determines if the load of the out-going in-band channels is great or not or “determining whether a second video channel has an available communication channel”. Inherently, the system selects an in-band channel if the load isn’t great or “selecting the second video channel if second video channel has an available communications channel”, otherwise the system selects an OOB channel to transmit the data to the terminal or

“selecting a OOB channel...if second communication channel does not have an available communication channel” (See column 8 lines 3-20). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the headend disclosed by Goffin to “determine whether the second video channel has an available communication channel” and “selecting the second video channel if second video channel has an available communications channel...and selecting a OOB channel...if second communication channel does not have an available communication channel”, as taught by Banker, in order to provide a more expedient mode of transmission.

(3) Addington discloses a system to delivery IP data over MPEG transports networks (See Figs. 1 and 2). Addington discloses that the IP data can be delivered to the subscriber's terminal using in-band or OOB channels (See column 6 lines 5-20). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the headend disclosed by Goffin to transport IP data using the OOB channels, as taught by Addington, in order to expand the capabilities of the system thereby providing an alternate means of delivering data down to the subscriber.

Regarding claim 5, the “selected communication channel” is identified within a confirmation message or “channel resource confirmation message” that is within a MPEG packet as taught by Gotwald, where inherently a packet ID (PID) would describe the contents of the MPEG packet (See claim 4 above).

Regarding claim 6, Goffin discloses the use of “an out-of-band region having at least one out-of-band communication channel” (See claim 4 above). Furthermore, Banker discloses a method that utilizes both the in-band and out-of-band to transport data to the terminals or set-top terminals or “selected communication channel...is and OOB channel”. Inherently, when an OOB transmission method is used it is “identified in the channel resource confirmation message” as discussed in claim 4 above.

Claim 10 contains the limitations of claim 4 (wherein the system includes a headend) and is analyzed as previously discussed with respect to that claim.

Claim 11 contains the limitations of claims 5 and 10 and is analyzed as previously discussed with respect to those claims.

Claim 12 contains the limitations of claims 6 and 10 and is analyzed as previously discussed with respect to those claims.

Claim 16 contains the limitations of claim 4 (wherein the system includes a settop terminal) and is analyzed as previously discussed with respect to that claim.

Claim 17 contains the limitations of claims 5 and 16 and is analyzed as previously discussed with respect to those claims.

Claim 18 contains the limitations of claims 6 and 16 and is analyzed as previously discussed with respect to those claims.

Claim 19 contains the limitations of claim 4 (where inherently the headend and settop terminal each have a “transmitter” and “receiver”) and is analyzed as previously discussed with respect to that claim.

Claim 20 contains the limitations of claims 4, 10, and 19 and is analyzed as previously discussed with respect to those claims.

Claim 21 contains the limitations of claims 4, 10, and 19 and is analyzed as previously discussed with respect to those claims.

Claim 22 contains the limitations of claims 5 and 21 and is analyzed as previously discussed with respect to those claims.

Claim 23 contains the limitations of claims 6 and 21 and is analyzed as previously discussed with respect to those claims.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 4-6, 10-12, and 16-23 have been considered but are moot in view of the new ground(s) of rejection.

Furthermore, applicant's arguments with respect to Gotwald and Banker have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant also argues with respect to Banker that the out-of-band transmission is not used when there is insufficient capacity in the in-band channel for transporting data. However, reading the independent claims in the broadest sense, Banker does meet the



limitations of the claim. Banker states that the system can use an out-of-band transmission if an in-band data transmission is not available (See Banker column 8 lines 3-25).

Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The examiner suggests that applicants consider providing more details in the independent claims about how the system determines if a channel is available (e.g. having sufficient or insufficient capacity) and consider stating in the independent claims that the system re-routes an Internet connection as supported in the applicant's specifications. Adding these details in the independent claims would aid in overcoming the current grounds of rejection.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JGU  
November 16, 2005



VIVEK SRIVASTAVA  
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